


One Goal, Two Methods

Screen shots of the website –

PLEASE NOTE THE LINKS ARE NOT
ACTIVE – go to the site to use them!

- The links embedded in these pages do NOT work, this is merely a screen shot of each page for reference.
- To use the links, go to the website listed on the class wiki page
- To view the videos and document, use the links posted on the class wiki page

A photograph of a herd of elephants in a savanna landscape. In the background, a large, snow-capped mountain (Mount Kilimanjaro) rises against a blue sky with some clouds. The elephants are in the foreground, some standing and some moving. The image is partially obscured by a semi-transparent white box containing text.

Two heads may be better than one when you're trying to solve a tricky problem. But when it comes to **reproduction**, are two parents always better than one?

Use the navigation controls below to take this lesson.

If you would rather not save your work as you go through this activity, you may **preview this lesson**.



For any species to continue, its living members need to create offspring. They do this through a process called reproduction.

Reproduction—the process of having children or **offspring**—is a highly important step in the life cycle of all living things. Without it, entire species would disappear as their individual members died off. Living things **reproduce** using one of two basic methods. Each one has advantages (its good points) and disadvantages (its bad points). In this lesson you'll learn about these two methods: sexual and asexual **reproduction**.

WHAT YOU WILL LEARN

Goals

Here are the big ideas you will learn about in this lesson:

Reproduction is essential to the survival of a species

All living things **reproduce** using either sexual or asexual methods of **reproduction**

Each method of **reproduction** has its advantages and disadvantages

Strategies

You will be using many reading and writing strategies to complete this lesson. The key strategies that you will focus on are:

Comparing and contrasting ideas

Making inferences

Determining important information

Vocabulary

Read these words and their definitions. When you see them, you may click on them to read the definition again.

reproduction

offspring

traits

clone

genes

natural selection



Asexual reproduction is sometimes called cloning. A clone is an individual that is an exact copy of its parent.

Have you ever wished you could make a copy of yourself? In asexual reproduction, a single parent does just that. Because the offspring are copies of the parent, they share the same traits as the parent. That is, the parent and the offspring almost always look and behave exactly alike.

What are some reasons why a living thing might want exact copies of itself? Write your answer here.

<type your text here>

SAVE NOTES



Asexual Reproducers

Video

Length: 2m 05s

[VIEW](#)

An amoeba (uh-MEE-buh) is a kind of living thing made of just one cell. It uses asexual **reproduction** to create more amoebas. First, an amoeba makes a copy of its full set of **genes**. (**Genes** are like instructions that exist inside every cell of every living thing. They influence how every organism looks and acts.)

Next, the amoeba divides in two. Each of the two amoebas now contains its own set of **genes**. These two amoebas can then pass along these **genes** to their own **offspring**.

Not all asexual **reproducers** have just one cell like amoebas. And not all asexual **reproducers** divide in two to create their **offspring**. Watch this video segment to learn about an unusual species of lizard.

Click "View" on the left to watch the video.



Sexual reproduction creates variety, or differences in appearance and behavior within the same species. This is important, because variety can help a species make changes in order to survive when the conditions around them change.

Most animal, insect, and plant species **reproduce** in pairs, or twos. In sexual **reproduction**, two individuals of the same species each contribute a half-set of their **genes**. Thus, in their whole set of **genes**, **offspring** inherit, or receive from their parents, a mixture of **traits**.

Write down some **traits** that parents pass on to their **offspring**. In what ways do these **traits** help a species survive? Use the box below for your ideas.

<type your text here>

SAVE NOTES



You will now learn about two different species of fish that live in the same environment. One **reproduces** asexually, the other sexually. This video explains how sexual **reproduction** provides an important advantage against the spread of disease. Click "View" on the left to watch the video.

Then show what you've learned by answering these three questions. Be sure to save all your answers before you go to the next screen.

Why Sexual Reproduction?

Video

Length: 3m 12s

[VIEW](#)

QUESTION 1 OF 3

What is the name given to an offspring that is the exact copy of its parent?

- ☐ a. A fax.
- ☐ b. A clone.
- ☐ c. A mimeograph.

[SAVE ANSWER](#)



Reproduction—The Pros and Cons of Each Method

Document

[VIEW](#)

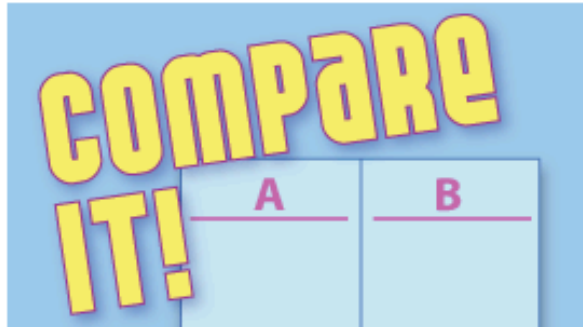
While most living things are born as a result of sexual **reproduction**, others result from asexual **reproduction**. In this passage, you will read more about the advantages and disadvantages of each method of **reproduction**.

Click "View" on the left to read the passage.

After you have finished reading the passage, describe in your own words what natural selection means in the box below. Give one example of how an animal's environment can influence the method it uses to **reproduce**.

<type your text here>

[SAVE NOTES](#)

[VIEW](#)

Compare It!
Interactive

Think of what you've learned so far about asexual and sexual **reproduction**. In this activity, you will compare some basic ideas about these two **reproductive** methods. You may want to watch the videos again or review the passage before doing the activity (see below).

Click "View" on the left to begin the activity. Your teacher will review the answers with you.



Asexual Reproducers

Video

Length: 2m 05s

[VIEW](#)

Why Sexual Reproduction?

Video

Length: 3m 12s

[VIEW](#)

Reproduction—The Pros and Cons of Each Method

Document

[VIEW](#)



[VIEW](#)

Match It!
Interactive

You will now check your understanding of the vocabulary words for this lesson by placing them in sentences. Click "View" on the left to begin the activity.

Before moving to the next screen, choose two words from the vocabulary list and write a new sentence for each word.

Vocabulary words: reproduction, offspring, traits, clone, genes, natural selection

<type your text here>

[SAVE NOTES](#)



Is it better to have two parents or one? Nature shows us again and again that each situation has advantages and disadvantages.

In this lesson, you have learned about the two forms of **reproduction** and how they relate to **natural selection**, the process that drives evolution. You will now write an essay that shares what you have learned and what you think about it.

Begin by reviewing your notes. Click "review my work" above and view print out the screen that pops up.

Final Assignment Instructions

Click **Reproduction: One Goal, Two Methods—Final Assignment (PDF)**.

Choose *one* of the topics in the PDF and **write** an essay.

Organize your response so that it includes at least *three* supporting details that you have learned from the reading passage, video(s), and other materials in this lesson.

Use at least *three* vocabulary words (or form of the words) as part of your supporting details.

